

PA28α (D1C10) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R Mk	Endogenous	28	Rabbit IgG	#Q06323	5720

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

PA28α recognizes endogenous levels of total PA28α protein. This antibody does not cross-react with either PA28β/PSME2 or PA28γ/PSME3.

Species predicted to react based on 100% sequence homology

Bovine, Dog, Pig

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human PA28α protein.

Background

The 20S proteasome is the major proteolytic enzyme complex involved in intracellular protein degradation. PA700, PA28, and PA200 are three major protein complexes that function as activators of the 20S proteasome. There are three evolutionarily conserved subunits of PA28: PA28α (PSME1), PA28β (PSME2), and PA28γ (PSME3) (1,2). PA28α and PA28β form a heteroheptameric complex and function by binding to the 20S complex at its opening site(s). The PA28α/β complex is present throughout the cell and participates in MHC class I antigen presentation by promoting the generation of antigenic peptides from foreign proteins (2). PA28γ exists in the form of a homoheptamer and is mainly located in the nucleus. The PA28γ complex exerts its function by binding and guiding specific nuclear target proteins to the 20S proteasome for further degradation (3,4).

Background References

1. Dahlmann, B. (2005) *Essays Biochem.* 41, 31-48.
2. Rechsteiner, M. and Hill, C.P. (2005) *Trends Cell Biol.* 15, 27-33.
3. Zhou, P. (2006) *Cell* 124, 256-257.
4. Li, X. et al. (2006) *Cell* 124, 381-392.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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